
DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

**Endangered and Threatened Wildlife
and Plants; Proposal To Determine
Agave Arizona To Be an Endangered
Species**

AGENCY: Fish and Wildlife Service,
Interior.

ACTION: Proposed rule.

SUMMARY: The U.S. Wildlife Service proposes to list a plant, *Agave arizonica* Gentry and Weber (Arizona agave), as an Endangered species. This species is a native plant of Arizona. The reproductive potential of this species is very low. All of the wild plants occur on Federal lands in the Tonto National Forest. They are threatened by collectors who desire these plants for desert rock gardens because they are very attractive succulents which make decorative garden ornamentals. Cattle grazing may be a secondary threat to *Agave arizonica* due to habitat disturbance and trampling of the plants, as well as some herbivore predation. This proposal, if made final, will provide protection under the Endangered Species Act of 1973, as amended. The Service seeks data and comments from the public on this proposal.

DATES: Comments must be received on or before July 19, 1983. Public hearing requests must be received on or before July 5, 1983.

ADDRESSES: Comments and materials concerning this proposal, preferably in triplicate, should be sent to the Office of Endangered Species, U.S. Fish and Wildlife Service, P.O. Box 1306, Albuquerque, New Mexico 87103. Comments and materials received will be available for public inspection by appointment during normal business hours at the above address.

FOR FURTHER INFORMATION CONTACT: Dr. Russell L. Kologiski, Regional Botanist, U.S. Fish and Wildlife Service (see Addresses section above) (617/965-5100).

SUPPLEMENTARY INFORMATION:

Background

Agave arizonica was first discovered by J. H. Houzenga, H. J. Hazlett, and J. H. Weber in the New River Mountains of Arizona. H. S. Gentry and J. H. Weber described this species in the Cactus and Succulent Journal in 1970 (Gentry, 1970). This member of the Agave family has leaves growing from the base in a somewhat flattened globular form, about 30.7 centimeters high and 41 centimeters broad. The slender, branching, flowing stalk is 2.7–3.6 meters tall. The flowers are small, pale yellow and jar-shaped.

This species is endemic to a very small area in the granite hills and creek-bottoms near the summit of the New River Mountains in central Arizona at an elevation of 915–1830 meters. The surrounding vegetation is a chaparral association that is transitional between oak-juniper woodland and mountain mahogany-oak scrub. The soil is mixed gravelly loam from mazatzal quartzite. The continued existence of this plant is

threatened by potential collecting for commercial trade and to a lesser degree, by trampling from cattle, browsing by deer, and insect damage.

On July 1, 1975, the Service published a notice of review in the *Federal Register* (40 FR 27823–27924) indicating its acceptance of the report of the Smithsonian Institution as a petition within the context of Section 4(c)(2) of the Endangered Species Act. On June 16, 1976, the Service published a proposed rule in the *Federal Register* (41 FR 24523–24572) which included *Agave arizonica* as an Endangered species. On December 10, 1979, the Service withdrew all outstanding proposals not finalized within 2 years of their first publication, as required by the 1978 Amendments to the Act. On December 15, 1980, the Service published a new plant notice of review (45 FR 82479–82569) which included *Agave arizonica* as a candidate species for listing under the Endangered Species Act.

Summary of Factors Affecting the Species

Section 4(a)(1) of the Endangered Species Act (16 U.S.C. 1531 *et seq.*) and regulations promulgated to implement the listing provisions of the Act (codified at 50 CFR Part 424; under revision to accommodate 1982 amendments) set forth the procedures for adding species to the Federal list. The Secretary of Interior shall determine whether any species is an Endangered or a Threatened species due to one or more of the five factors described in subsection 4(a)(1). These factors and their application to *Agave arizonica* are as follows:

A. Present or threatened destruction, modification or curtailment of its habitat or range. The historically known populations of *Agave arizonica* occurred within an area of about 3.3–5.0 kilometer radius in the Tonto National Forest. In 1980, about 25 plants were known to exist at 12–14 localities. At present, three plants are known to exist at one site in the wild; land use on this area consists of leased cattle grazing. Proper protection and management plans for the plants are needed.

B. Overutilization for commercial, recreational, scientific, or educational purposes. There is a great potential for taking of this attractive species for cultivation in private rock gardens and for commercial trade. The southwest Forest Service botanist recognizes the collecting threat to this species and has suggested that the Forest Service prohibit the taking of all agaves in the west central portion of the Tonto Mountains in the range of *Agave arizonica*. However, taking prohibitions

on plants are difficult to enforce in the extremely rugged backcountry of the Tonto National Forest. Adequate personnel are not available to patrol the area and stop all unauthorized taking. So, the populations remain threatened by desert succulent collectors. At present, the localities of *Agave arizonica* are not generally known to the public, which has afforded it some protection. *Agave arizonica* is a slowly reproducing plant which could not readily repopulate an area from which individuals are removed.

C. Disease or predation (including grazing). Grazing has occurred in the habitat of *Agave arizonica*. While the impacts of grazing on this plant are not definitively known, cattle may affect it by trampling, habitat disturbance, and some minor grazing of the plants. Deer browse this species and may play some role in its poor reproductive success by eating the flower stalks before the capsules ripen. If this plant is listed, studies will be undertaken to determine grazing impacts and appropriate stocking rates for the habitat of *Agave arizonica* to insure its continued survival.

D. Inadequacy of existing regulatory mechanisms. *Agave arizonica* is protected by State law. The Arizona Native Plant law, A.R.S. Chapter 7, Section 3–901, specifically prohibits collection of *Agave arizonica* except for scientific or educational purposes under permit. This provision bars only collection, however, and not incidental destruction or habitat modification. It does not affect Federal actions directly. Violation constitutes only a class three misdemeanor, the lowest grade of misdemeanor recognized under State law. This law is moreover difficult to enforce over the entire State of Arizona, especially in the rugged mountainous habitat of this plant. The Endangered Species Act would complement the existing protection and offer additional protection for the species by prohibiting taking from Federal lands, by restricting interstate and international commerce, by substantially increasing penalties for violations, and by providing the protection of Section 7 of the Act.

E. Other natural or manmade factors affecting its continued existence. Any human pressure on this species may increase the possibility of its small populations going extinct through natural fluctuations. Disturbances are likely to have a severe impact on this species as the distribution is restricted, the population is very small, the reproductive potential is extremely low, and few young plants have been observed in the wild.

Critical Habitat

Section 4(a)(3) of the Endangered Species Act of 1973, as amended, requires that Critical Habitat be determined at the time of listing to the maximum extent prudent and determinable.

Critical Habitat is not being proposed for *Agave arizonica* as this would not be prudent due to taking pressures. Taking is the major threat to the Arizona agave. It is highly desirable for desert rock gardens because of its attractive globular rosette (basally attached leaves) and 2.7–3.5 meter tall inflorescence (flowering stalk). Publishing detailed location maps. (i.e., Critical Habitat maps published in the *Federal Register*) of the *Agave arizonica* populations would make the species more vulnerable to taking by collectors.

Effects of This Rule

The effects of this proposal, if published as a final rule, would include those mentioned below.

Subsection 7(a) of the Act, as amended, requires Federal agencies to evaluate their actions with respect to any species which is proposed or listed as Endangered or Threatened. This rule requires Federal agencies to satisfy their statutory obligations with respect to this species, that is, as a proposed species, agencies are required under Section 7(a)(4) to confer with the Service on any action that is likely to jeopardize the species. This action, if made final, will require Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of *Agave arizonica*. Since all populations of *Agave arizonica* occur on U.S. Forest Service land in Arizona, that agency would have the primary Section 7 responsibility.

The Forest Service's present regulations prohibit removing, destroying, or damaging any plant that is classified as a Threatened, Endangered, rare, or unique species (36 CFR 261.9), and are consistent with the purposes of the Act. The U.S. Forest Service supports listing this species as Endangered.

The Act and implementing regulations published at 50 CFR 17.61 set forth a series of general prohibitions and exceptions which apply to all Endangered plant species. With respect to *Agave arizonica* all trade prohibitions of Section 9(a)(2) of the Act as implemented by § 17.61 would apply. These prohibitions, in part, would make it illegal for any person subject to the

jurisdiction of the United States to import or export, transport in interstate or foreign commerce in the course of a commercial activity, or sell or offer for sale this species in interstate or foreign commerce. Certain exceptions would apply to agents of the Service and State conservation agencies. The Act and §§ 17.62 and 17.63 also provide for the issuance of permits to carry out otherwise prohibited activities involving Endangered species under certain circumstances.

Section 9(a)(2)(B) of the Act, as amended in 1982, states that it is unlawful to remove and reduce to possession Endangered plant species from areas under Federal jurisdiction or to sell it, offer it for sale, or deliver, receive, carry, transport, or ship it in interstate commerce in the course of a commercial activity. Permits for exceptions to this prohibition are available through the Federal Wildlife Permit Office, U.S. Fish and Wildlife Service, Washington, D.C. 20240 (703/235-1903). It is anticipated that few taking permits for the species will ever be requested.

The Service will review this species to determine whether it should be considered for the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere for placement upon its Annex, and whether it should be considered for other appropriate international agreements.

National Environmental Policy Act

A draft Environmental Assessment has been prepared in conjunction with this proposal. It is on file at the Service's Regional Office (see address section), and may be examined, by appointment, during regular business hours. This assessment will form the basis for a decision at the time of final rule as to whether this is a major Federal action which would significantly affect the quality of the human environment within the meaning of Section 102(2)(C) of the National Environmental Policy Act of 1969 (implemented by 40 CFR Parts 1500-1508).

Public Comments Solicited

The Service intends that the rules finally adopted will be as accurate and effective as possible in the conservation of any Endangered or Threatened species. Therefore, any comments or suggestions from the public, other concerned governmental agencies, the scientific community, industry, private interests, or any other interested party concerning any aspect of these proposed

rules are hereby solicited. Comments particularly are sought concerning:

(1) Biological or other relevant data concerning any threat (or the lack thereof) to *Agave arizonica*;

(2) The location of any additional populations of *Agave arizonica* and the reasons why any habitat of this species should or should not be determined to be Critical Habitat;

(3) Additional information concerning the range and distribution of this species; and

(4) Current or planned activities in the subject areas.

Final promulgation of the regulation on *Agave arizonica* will take into consideration the comments and any additional information received by the Service, and such communications may lead to a final regulation that differs from this proposal.

The Endangered Species Act provides for a public hearing on this proposal, if requested. Requests must be in writing and received within 45 days of the date of the proposal. Such requests should be addressed to the Regional Director, U.S. Fish and Wildlife Service, P.O. Box 1306, Albuquerque, New Mexico 87103.

Authors

The authors of this proposed rule are Ms. Sandra Limerick and Ms. Rosemary H. Carey, Endangered Species Staff, U.S. Fish and Wildlife Service, Department of the Interior, P.O. Box 1306, Albuquerque, New Mexico 87103 (505/766-3972). Ms. E. LaVerne Smith of the Service's Washington Office of Endangered Species served as editor.

Status information and a preliminary listing package were contracted for by the Service from Dr. Barbara G. Phillips, Dr. Arthur M. Phillips III, Jill Mazzoni, and Elaine M. Peterson, Museum of Northern Arizona, Route 4, Box 720, Flagstaff, Arizona 86001 (602/774-5211).

References

- Gentry, H. S. 1970. Two new Agaves in Arizona. *Cactus and Succulent Journal* 42(5):223-225.
- Kearney, T. H. and R. H. Peebles. 1951. *Arizona Flora*. University of California Press, Berkeley, California.
- Phillips, B. G., A. M. Phillips, J. Mazzoni and E. M. Peterson. 1980. Status report on *Agave arizonica*. U.S. Fish and Wildlife Service, Office of Endangered Species, Albuquerque, NM.

List of Subjects in 50 CFR Part 17

Endangered and threatened wildlife, Fish, Marine mammals, Plants (agriculture).

Proposed Regulation Promulgation**PART 17—[AMENDED]**

Accordingly, it is hereby proposed to amend Part 17, Subchapter B of Chapter I, Title 50 of the U.S. Code of Federal Regulations, as set forth below:

1. The authority citation reads as follows:

Authority: Pub. L. 93-205, 87 Stat. 884; Pub. L. 95-632, 92 Stat. 3751; Pub. L. 96-159, 93 Stat. 1225; Pub. L. 97-304, 96 Stat. 1411 (16 U.S.C. 1531, *et seq.*).

§ 17.12 [Amended]

2. It is proposed to amend § 17.12(h) by adding, in alphabetical order the following to the list of endangered and threatened plants:

* * * * *

Species		Historic range	Status	When listed	Critical habitat	Special rules
Scientific name	Common name					
Agavaceae—Agave Family						
<i>Agave arizonica</i>	Arizona agave	U.S.A. (AZ)	E	NA	NA	NA

Dated: April 7, 1983.

G. Ray Arnett,

Assistant Secretary for Fish and Wildlife and Parks.

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